

Scientific) to yield a pH of 10. 1.0 g of the Mg-HAp containing unreacted Mg(OH)₂ was then suspended in the solution. The dissolution of the Mg(OH)₂ was accomplished under a vigorous stirring using a magnetic stirrer for 24 h. This procedure was repeated once under the same conditions, in order to completely remove the Mg(OH)₂ phase.

*BS
cont*

IN THE CLAIMS

Please amend claim 6 as follows:

57
6. (Amended) A method for the preparation of phase-pure crystalline magnesium-substituted hydroxyapatite comprising mechanochemically and hydrothermally reacting simultaneously a source of calcium ions, a source of magnesium ions, a source of phosphate ions and a source of hydroxide ions, at least one of which is soluble in water, in a aqueous reaction medium until said magnesium substituted-hydroxyapatite is formed.